

CLAIMS

What is claimed is:

1. A method of dynamically and automatically adjusting a speech output rate to match an speech input rate, comprising the steps of:
 - receiving a speech input;
 - computing a speech input rate from the speech input; and
 - dynamically adjusting the speech output rate to match the speech input rate.
2. The method of claim 1, wherein the method further comprises the step of determining a type of speech output.
3. The method of claim 2, wherein the method further comprises the step of adjusting a rate of text-to-speech synthesis to match the speech input rate if the type of speech output is text-to-speech.
4. The method of claim 2, wherein the method further comprises the step of counting alternate text available from a recorded output and determining an audio file length to compute a default output rate which is used to adjust a recorded output rate to match the input speech rate when the type of speech is recorded and alternate text is available.
5. The method of claim 4, wherein the method further comprises the step of obtaining an output word count from a transcription of a recorded speech output and determining an audio file length to compute a default output rate which is used to adjust a recorded output rate to match the input speech rate when the type of speech is recorded and alternate text is unavailable.

6. The method of claim 1, wherein the step of compute the speech input rate comprises the step of computing a running average of the rates computed for the last n utterances of the speech input.

7. The method of claim 1, wherein the method further comprises the step of feeding back an estimate of the speech input rate to a speech production mechanism to adjust the speech output rate.

8. A system for dynamically and automatically adjusting an speech output rate to match an speech input rate, comprises:

a memory; and

a processor programmed to receive a speech input, compute a speech input rate from the speech input, and dynamically adjust the speech output rate to match the speech input rate.

9. The system of claim 8, wherein the processor is further programmed to determine a type of speech output.

10. The system of claim 9, wherein the processor is further programmed to adjust a rate of text-to-speech synthesis to match the speech input rate if the type of speech output is text-to-speech.

11. The system of claim 9, wherein the processor is further programmed to count alternate text available from a recorded output and determine an audio file length to compute a default output rate which is used to adjust a recorded output rate to match the input speech rate when the type of speech is recorded and alternate text is available.

12. The system of claim 9, wherein the processor is further programmed to obtain an output word count from a transcription of a recorded speech output and determine an audio file length to compute a default output rate which is used to adjust a recorded output rate to match the input speech rate when the type of speech is recorded and alternate text is unavailable.

13. The system of claim 8, wherein the processor is further programmed to compute a running average of the rates computed for the last n utterances of the speech input when computing the speech input rate.

14. The system of claim 8, wherein the processor is further programmed to feed back an estimate of the speech input rate to a speech production mechanism to adjust the speech output rate.

15. A machine-readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of receiving a speech input, computing a speech input rate from the speech input, and dynamically adjusting the speech output rate to match the speech input rate.

16. The machine-readable storage of claim 15, wherein the machine-readable storage is further programmed to determine a type of speech output.

17. The machine-readable storage of claim 16, wherein the machine-readable storage is further programmed to adjust a rate of text-to-speech synthesis to match the speech input rate if the type of speech output is text-to-speech.

18. The machine-readable storage of claim 16, wherein the machine-readable storage is further programmed to count alternate text available from a recorded output and

determine an audio file length to compute a default output rate which is used to adjust a recorded output rate to match the input speech rate when the type of speech is recorded and alternate text is available.

19. The machine-readable storage of claim 16, wherein the machine-readable storage is further programmed to obtain an output word count from a transcription of a recorded speech output and determine an audio file length to compute a default output rate which is used to adjust a recorded output rate to match the input speech rate when the type of speech is recorded and alternate text is unavailable.